



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Ferry-Morse Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (8 U.S.C. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CHRYSANTHEMUM

'Applause Lavender Shades'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 10th day of December in the year of our Lord one thousand nine hundred and eighty-one.

Attest:

Samuel H. Jones
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY E8211		1b. VARIETY NAME APPLAUSE LAVENDER SHADES DOB 21 SEPT 81		FOR OFFICIAL USE ONLY PV NUMBER 7900028	
2. KIND NAME Chrysanthemum, Seed Type		3. GENUS AND SPECIES NAME Chrysanthemum morifolium		FILING DATE 12-12-78	TIME 3:00 P.M.
4. FAMILY NAME (BOTANICAL) Compositae		5. DATE OF DETERMINATION January 10, 1978		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 12-12-78 10/26/81
6. NAME OF APPLICANT(S) FERRY-MORSE SEED COMPANY Dr. Scott C. Trees, Breeder		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 111 Ferry-Morse Way P. O. Box 100 Mountain View, CA 94042		8. TELEPHONE AREA CODE AND NUMBER 415-967-6973	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION California, April 7, 1969		11. DATE OF INCORPORATION April 7, 1969
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: Mr. Donald V. Brondyke, Executive Vice President Ferry-Morse Seed Company 111 Ferry-Morse Way, P. O. Box 100 Mountain View, CA 94042					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement.					
<input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)					
<input checked="" type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.					
14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO			14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

11/30/78
(DATE)

by: FERRY-MORSE SEED COMPANY
Donald V. Brondyke
(SIGNATURE OF APPLICANT)
EXECUTIVE VICE PRESIDENT

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit G, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A - ORIGIN AND BREEDING HISTORY

VARIETY: E8211

E8211 was originally a single plant selection made in 1969 out of Sutton's Early Flowering Dwarf Mix, (see attached pedigree). This selection was chosen primarily for daylength insensitivity. In following generations, until 28829A/75, selections were made with primary emphasis on daylength insensitivity, with secondary emphasis on dwarfness of habit, and for compact, mound shaped plants. 28829A/75 was selected for its lavender color, as well as daylength insensitivity and its compact habit. In 1976 it was judged that the line was uniform enough for mass crossing, and again selection was for improved lavender color and compact habit. Daylength insensitivity was quite uniform throughout the line at this point.

In 1977, the line was quite uniform, all plants being compact, dwarf daisy flowered, and lavender or a shade of lavender, and the plants bloomed 100 to 110 days after sowing, anytime of the year. January 10, 1978, the line was given the experimental designation of E8211.

SUPPLEMENT TO EXHIBIT A 2-1-81

Seed increases of E8211 since 1976 have yielded plants quite uniform for habit and daylength insensitivity. Trial rows of E8211 grown from the 1976 mass increase bloomed 100 to 110 days after sowing, and plant habit was uniform. Also, plants from the 1979 seed increase (two generations removed from the 1976 seed increase) were not distinguishable, in the same trial, from the 1976 mass increase.

Normal variations in E8211 can be found in flower color and flower form. The majority of plants will have lavender flowers of the single daisy type. Colors can vary from pale lavender to dark lavender. Flower form varies from single daisy to semi-double daisy, with three or four plants out of 100 showing semi-quilled or semi-spoon type petals.

CHRYSANTHEMUM - PEDIGREE:

E8211

55326 Mass #1/78	3 plants mass crossed (Dwarf Lavender Shades)
48215 Mass/77	4 plants mass crossed (Dwarf Lavender Shades)
39458 Mass/76	4 plants mass crossed (Dwarf Lavender Shades)
28829A/75	Single plant selection (Dwarf Lavender) for selfing
22894E/74	Single plant selection for selfing (22894 segregating for color)
1147B/73	Single plant selection for selfing
432B/72	Single plant selection for selfing
142A/71	Single plant selection for selfing
3811F-2/70	Single plant selection for selfing
1969	Single plant selection Sutton's Early Flowering Mix

SUPPLEMENT TO CHART: (2-1-81)

Please note that the main selection criteria for each generation was early blooming (daylength insensitivity), and for color. Selection against self incompatibility was not a criteria, and in fact many of the selfed plants yielded very small amounts of seed, indicating some self incompatibility.

EXHIBIT B: DATA INDICATIVE OF NOVELTY

VARIETY: E8211

In 1977 E8211 was compared with F₁ Fanfare, from T. Sakata & Co.; Monarch Korean Sunset Mix, from Hurst Gunson Cooper Taber Ltd.; Chrysanthemum Indicum Charm Mix, from Hurst Gunson Cooper Taber Ltd.; and F₁ Autumn Queen, from T. Sakata & Co. In 1978 E8211 was compared with Chrysanthemum Japonicum Eriso Semi Dwarf Mix, from Clause Seed Co.

E8211 is distinct and unique by combining in one breeding line the characteristics of: Dwarfness and uniformity of plant habit; day-length insensitivity; and restricting flower color to shades of lavender.

	<u>Time to First Bloom (Days)</u>	<u>Plant Description</u>
E8211	100-110	Compact plants. Blooms cover foliage. Flowers are all daisy type, lavender shades.
F ₁ Fanfare	Very day length sensitive	Upright plants, blooms on upper parts of plants, only. No blooms on sides. Flowers of all colors. Flowers from single to double. Plants 40-50 cm in height.
Eriso Semi Dwarf Mix O.P.	130-160	Upright plants, blooms predominately on upper portion of plants. Flowers of all colors. Plants 40-50 cm in height.
Monarch Korean Sunset Mix	130-160	Upright plants. Flowers of all colors. Not uniform for height. Plants 30-50 cm in height.
F ₁ Autumn Queen	Very day length sensitive	Uniform for height. Flowers of all colors 23-33 cm in height.
Chrysanthemum Indicum Charm Mix	130-160	Compact plants, variable for height. Flowers of all colors. Plants 23-33 cm in height.

SUPPLEMENT TO EXHIBIT B 2-1-81

In 1980, E8211 was compared to seed chrysanthemums F₁ Golden Dream (Sakata Co.), and to Petite Point Mix (from Bodger Seed Co.). All were sown on 4-17-80, some sixty days prior to the longest day of the year. This was an attempt to have bud initiation coincide with the longest photoperiod day of the year, to show that E8211 does exhibit a high degree of daylength insensitivity. Over 75% of the E8211 trial rows were blooming 110 days after sowing, with the remainder blooming within the next 20 days.

F₁ Golden Dream had buds with some color showing 157 days after sowing, with 75% of the plants in bloom 180 days after sowing.

Petite Point Mix had its first bloom 120 days after sowing, with 50% of the plants in bloom 180 days after sowing.

E8211 is most similar to the chrysanthemum Charms Mixed, from Sutton Seed Co., in that plant habits are similar. E8211 differs significantly from Charms Mixed in being earlier to bloom, more uniform in height, and E8211 is shades of lavender compared to the mix of color in Charms.

CHARMS MIXED = SUTTON'S CHARM
R.B.

EXHIBIT C - OBJECTIVE DESCRIPTION OF VARIETY

VARIETY - E8211

Comparison varieties used in the objective description were chosen because they are seed propagated varieties. E8211 was developed to be grown from seed, and to compete in the marketplace with the varieties mentioned in exhibit B, and therefore it was felt that comparisons would be more appropriate between E8211 and other seed propagated mums.

February 1980

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service, LPS
Plant Variety Protection Office
Beltsville, Maryland 20705

OBJECTIVE DESCRIPTION OF VARIETY
CHRYSANTHEMUM (Chrysanthemum spp.)

Name of Applicant FERRY-MORSE SEED COMPANY	Temporary Designation E8211	Variety Name APPLAUSE Double Lavender Shades (DCB 2158781)
Address (Street and No. or R.F.D. No., City, State, and Zip Code) 111 Ferry-Morse Way, Drawer 7274, Mountain View, CA 94042		For Official Use Only PVPO Number 7900028

Describe first year unpruned plants grown in full sun. Place numbers in the boxes (e.g., [0][8][9]) to indicate the character expressions which best describe this variety. Specify the appropriate variety name in the blanks provided when supplying comparative data. Whenever possible, use a recognized color chart (see page 6). Specify color chart used: NICKERSON COLOR FAN (Manufactured by Munsell Color Company)

1. SPECIES NAME:

[1] 1= C. morifolium Ramat. 2= other (specify) _____

2. PLANT TYPE (at full bloom):

[1] Garden habit:

1= Cushion floral canopy extending to ground line
(Minwhite)

2= Mound floral canopy ending above ground line
(Ruby Mound)

3= Upright nonspreading
(Polar Star)

4= Upright spreading
(Autumn Fire)

5= Decumbent spreading
(Golden Carpet)

Height:

Width:

[0][2][5] cm

[0][2][5] cm

[1][5] cm shorter than *Petite Point Mix

[1][5] cm narrower than *Petite Point Mix

same height as _____

same width as _____

[][] cm taller than _____

[][] cm wider than _____

*Petite Point Mix:

Bodger Seed Company
P.O. Box 5090
El Monte, CA 91734

☐ ☐ Photo-response -- number of weeks after initiation of $11\frac{1}{2}$ hour short day photoperiods until plant with fully open flowers (under natural flowering response; photo-insensitive = 00).

☐ Temperature response -- inhibitory effect of temperature on normal development of visible flower buds (with controlled temperature and short photoperiods of less than $13\frac{1}{2}$ hours; Cathey 1954).

1= inhibition at 50°F (thermopositive)

2= inhibition at 70°F (thermonegative)

3= no inhibition at 50 or 70°F (thermozero)

3. LEAF (observe mature leaves attached near midpoint of stem before initiation of flower buds):

☐ Color of upper surface:

1= light green
(Mesabi)

2= medium green

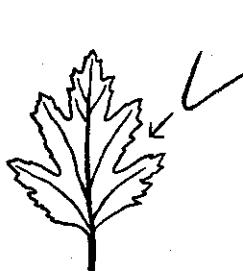
3= dark green
(Minnruby)

☐ Texture:

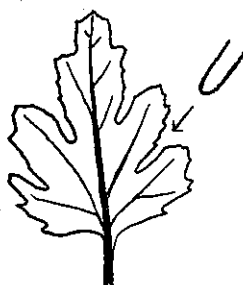
1= soft

2= leathery

☐ Margins of major basal sinuses:



1= divergent

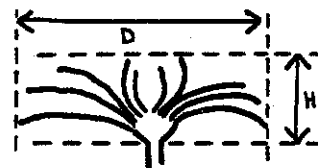


2= parallel



3= convergent

4. FLOWER HEAD (observe fresh fully open blooms):



Diameter:

 mm

 mm narrower than _____
 same diameter as Petite Point
 mm wider than _____ Mix

Height:

 mm 015 mm

 mm shorter than _____
 same height as Petite Point Mix
 mm higher than _____
D.C.B. - PER LETTER OF D. THOMPSON
DATED 14 SEPT '81

Receptacle diameter (include disk florets when present):

 mm

 Type (number of ray floret rows given in parentheses):

- 1= single (1) 2= semi-double (2 to 5)
 3= double (>5, disk florets present at center)
 4= fully double (>5, disk florets absent at center)

 Bloom classification (according to National Chrysanthemum Society, 1978):

- | | | |
|---------------------------|-------------------------|-----------------------|
| 1= irregular incurve | 2= reflex | 3= regular incurve |
| 4= decorative | 5= intermediate incurve | 6= pompon |
| 7= single and semi-double | 8= anemone | 9= spoon |
| 10= quill | 11= spider | 12= brush and thistle |
| 13= unclassified | | |

 Bloom scent:

- 1= absent 2= present

5. RAY FLORETS (observe fresh fully open blooms):

 Corolla tips:


1= pointed



2= rounded



3= dentate

4= lacinated/
fissured5= open
quill6= closed
quill

☐ 1 Corolla shape:



1= flattened



2= rolled



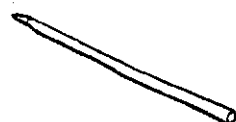
3= incurved



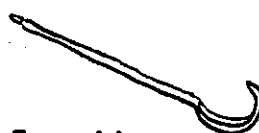
4= reflexed



5= broken



6= quilled



7= spider



8= spoon

9= other (specify) _____

Corolla color -- Place in each box the proper number from the color list below. Exact color reference may be indicated by placing color chart values in the blanks provided:

Outer ray florets:

- ☐ 2 upper side
color chart value 2.5 RP 7/8
Moderate Purplish Pink
- ☐ 2 lower side
color chart value 10P 8/5
Pale Purplish Pink

1= light pink 2= pink 3= light yellow
6= bronze 7= red 8= purple

Inner ray florets:

- ☐ 2 upper side
color chart value 2.5 RP 7/8
Moderate Purplish Pink
- ☐ 2 lower side
color chart value 10P 8/5
Pale Purplish Pink

4= yellow 5= light bronze
9= white/green 0= other (specify) _____

☐ 1 Color pattern:

1= solid 2= other (specify pattern and colors) _____

☐ 1 Pinking/bronzing with cool temperature or bloom age:

1= present 2= absent

6. DISK FLORETS (at anthesis):

☐ 1 Distribution:

- 1= center of head, conspicuous 2= center of head, inconspicuous
 3= mostly scattered among ray florets 4= absent

☐ 1 Corolla color:

- 1= yellow 2= brown 3= black 4= other (specify) _____
 color chart value 5Y 8/12 Vivid Yellow

☐ 2 Corolla shape:

- 1= tubular 2= funnel 3= petaloid

7. DISEASE REACTION (0= not tested 1= susceptible 2= resistant):

- ☐ 0 Powdery Mildew (Erysiphe cichoracearum)
☐ 0 Rust (Puccinia chrysanthemi)
☐ 0 Leafspot (Septoria chrysanthemi)
☐ 0 Wilt (Verticillium spp.)
☐ 0 Gray Mold/Petal Rot (Botryis cinerea)
☐ 0 Ray Blight (Mycosphaerella ligulicola)
☐ 0 Bacterial Blight (Erwinia carotovora)
☐ 0 Crown Gall (Agrobacterium tumefaciens)
☐ 0 Other (Specify) _____

8. Indicate a variety that most closely resembles the variety submitted for the following characters:

CHARMS MIX = SUTTON'S CHARM ^{DCB}

11

Character	Name of Variety	Character	Name of Variety
Plant Habit	CHARMS MIX	Flower Size	CHARMS MIX
Plant Size	CHARMS MIX	Flower Shape	CHARMS MIX
Leaf Shape	CHARMS MIX	Flower Color	ELEGANT CUSHION POWDER RIVER DCB - LETTER OF 14 SEPT 91

CHARMS MIXED from: SUTTON'S SEEDS LTD, Hele Rd, Torquay, Devon, TQ2 7QJ, GREAT BRITAIN

REFERENCE

Cathey, H.M. 1954. Temperature classification of chrysanthemum. Bull. N.Y. State Flower Growers 104: 1.

National Chrysanthemum Society. 1978. Handbook on chrysanthemum classification. National Chrysanthemum Society, Inc., U.S.A.

SUGGESTED COLOR CHARTS

Munsell Color Co., Inc. 1966. Munsell book of color. Baltimore.

The Royal Horticultural Society. 1966. R.H.S. colour chart. London.

U.S. Department of Commerce, National Bureau of Standards. 1976. National Bureau of Standards standard reference material 2107 color kit. Washington, D.C.

EXHIBIT D: BOTANICAL DESCRIPTION OF THE VARIETY

VARIETY E8211

Plants grown in the field are 23 to 33 cm in height when mature, with a spread of 23 to 33 cm. Plant habit is very branched, the plants having the basic shape of a half sphere. All parts of the plant have a strong chrysanthemum scent.

The leaves are dark green and slightly pubescent above; and densely tomentose and lighter green underneath. The leaves are alternate, and are ovate to lanceolate in shape, with margins coarsely toothed to deeply dissected.

Flower peduncles emerge from leaf and apex axils, one peduncle per axil. Each peduncle terminates in a flower head, which opens to form a radiate disk flower. In full bloom, the plant is covered with flowers; the flowers being held above and covering the foliage. Each individual flower is 3.5 to 4.5 cm wide, with a center disk approximately 1 cm. across. The center disk is invariably yellow; ray flowers have entire margins and range in color from very pale lavender to bright lavender. The ray flowers are arranged in one to three rows. The ray flower petals are 16 mm in length, and are 3 mm wide. Involucre scales are imbricated and appressed.

Seed is sepia colored; approximately 1.5 mm long, and less than .5 mm thick, with an elongated elipsoid shape.

The seed germinates readily, and E8211 has demonstrated flowering 100 to 110 days after sowing, and has shown some insensitivity to day length affects on flowering.

7900028

EXHIBIT "E"

Plant Variety Protection Application

No: _____

ASSIGNMENT

I, SCOTT C. TREES, agree and hereby do transfer and assign to FERRY-MORSE SEED COMPANY all of my rights, title, and interest in and to that certain variety namely, CHRYSANTHEMUM E8211, for which application for Plant Variety Protection Certificate has been tiled. This agreement shall be binding on my administrators, successors and assigns.

In Witness Whereof, I have executed this agreement this 3rd day of November, 1978.

BREEDER

Scott C. Trees
SCOTT C. TREES

ASSIGNMENT OF INTELLECTUAL PROPERTY

WHEREAS, HARRIS MORAN SEED COMPANY, a corporation duly organized and existing under the laws of the State of Maryland, having its principal place of business at 4511 Willow Road, Suite 3, Pleasanton, California 94588 ("Assignor"), has, pursuant to that certain Bill of Sale and Assignment dated as of June 30, 1997, transferred to FERRY-MORSE SEED COMPANY (CALIFORNIA), a corporation duly organized and existing under the laws of the State of California, having its principal place of business at 555 Codoni Avenue, P.O. Box 4938, Modesto, California 95352-4938 ("Assignee"), all of the intellectual property Assignor had adopted, used and was using as of the effective date of this Assignment, including without limitation, the intellectual property represented by the United States Plant Variety Protection Certificates of Assignor identified on Schedule A hereto (collectively, the "Property"); and

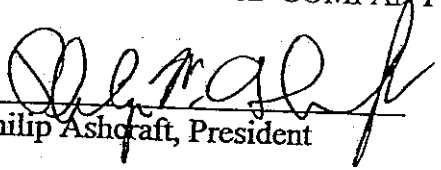
WHEREAS, on the date hereof, Assignee has changed its name to "Harris Moran Seed Company";

NOW, THEREFORE, effective by this instrument as of the close of business on June 30, 1997, and for good and valuable consideration, receipt of which is hereby acknowledged, Assignor hereby assigns to Assignee any and all right, title and interest worldwide in and to the Property and any and all recordations thereof, including, but not limited to, the use of the Property in any manner, all benefit of any and all prior use of the Property, and any and all rights to initiate claims or proceedings for past, present or future infringements of Assignor's rights, title and interest in and to the Property.

Dated: as of June 30, 1997

HARRIS MORAN SEED COMPANY

By:


Philip Ashcraft, President

CERTIFICATE OF AMENDMENT
OF THE
ARTICLES OF INCORPORATION
OF

FERRY-MORSE SEED COMPANY (CALIFORNIA)
(a California corporation)

17500010

ENDORSED
FILED

In the office of the Secretary of State
of the State of California

JUN 30 1997

Bill Jones
BILL JONES, Secretary of State

To the Secretary of State
State of California

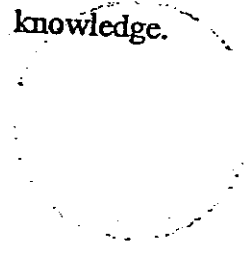
Pursuant to the provisions of the General Corporation Law of the State of California, the undersigned officers of FERRY-MORSE SEED COMPANY (CALIFORNIA), a California corporation (the "Corporation"), do hereby certify as follows:

1. The name of the Corporation is Ferry-Morse Seed Company (California).
2. Article One of the Corporation's Articles of Incorporation, which relates to the name of the Corporation, is hereby amended in its entirety to read as follows:

One. The name of this Corporation is:
HARRIS MORAN SEED COMPANY.
3. The amendment herein provided for has been approved by the Corporation's Board of Directors.
4. The amendment herein provided for was approved by the written consent of the Corporation's sole shareholder in accordance with the provisions of Section 902 of the California General Corporation Law. The total number of outstanding shares of the corporation is 5,000.

IN WITNESS WHEREOF, each of the undersigned does hereby declare under the penalty of perjury that he or she signed the foregoing Certificate of Amendment as of June 30,

1997, in the Town of Modesto, State of California, in the official capacity set forth beneath his or her signature and that the statements set forth in this certificate are true of his or her own knowledge.

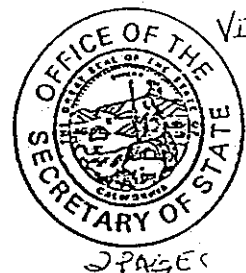

Yves Queste
Yves Queste, President

Helen Andritsakis
Helen Andritsakis, Secretary

State of California



SECRETARY OF STATE



I, *BILL JONES*, Secretary of State of the State of California, hereby certify:

That the attached transcript has been compared with the record on file in this office, of which it purports to be a copy, and that it is full, true and correct.

IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this

JUN 30 1937



Bill Jones

Secretary of State